PREFERRED STYLE FEATURES IN DRESSES FOR PHYSICALLY HANDICAPPED, ELDERLY WOMEN

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CHAPTER I

INTRODUCTION

The study of clothing for the handicapped is a vast, relatively new, and promising area of concern. Special clothing has been designed for people whose figures vary from the norm, for example the tall woman, the chubby girl, and the large woman. However, clothing designers have largely overlooked those who have physical handicaps, a group for which there is a great need for functional and attractive clothing. Some research has been conducted to determine clothing needs of the arthritic, the cerebral palsied, and the handicapped homemaker, but there is a large group of handicapped people whose clothing needs have been neglected. The aged, who are often physically handicapped, comprise a sizeable percentage of the United States population.

The elderly often have difficulty in obtaining well-fitted clothing appropriate for their changing figures. This problem is compounded when these people are physically handicapped. Clothing can hinder movements, produce discomfort, and make the wearer feel dowdy and unattractive. Also, the self-image and morale of the person can be influenced by clothing.

Providing a solution to this problem would serve a very practical need for the aged and physically handicapped. Simple movements such as dressing, undressing, walking, or moving the arms and legs would no longer need to be painful, uncomfortable, or impossible because of

poorly designed clothing. Dressed in attractive, comfortable clothing, these people may receive a boost in morale and inspiration to improve their over-all appearance.

Clothing of this type would fill a demand from a sizeable population. Over 20 million citizens in the United States are 65 years of age or older, and approximately 20 percent of this group have mobility limitations. Predictions indicate this segment of the population will increase in the future decades. (49)

Some clothing designs appropriate for the elderly handicapped could be applied to other types of handicaps as well. The results of this study need not be limited to only one group. One basic principle may solve several types of clothing problems for various physical limitations.

The Problem

The aged handicapped comprise a large, heterogeneous group. Therefore it was necessary to establish certain limitations for this investigation. The purpose of this exploratory study was to identify preferred style features in outerwear for physically handicapped females, 65 years or older, as viewed by nursing home personnel and patients.

Professional staff members contacted in local nursing homes offered opinions and facts concerning the clothing for elderly, physically handicapped women. Information supplied by these individuals supplemented opinions provided by nursing home residents. The data for this investigation were collected during April and May 1972.

The Objectives

The over-all objective of this study was to obtain opinions from key personnel and patients in nursing homes located in Stillwater, Oklahoma, concerning functional and aesthetic style features in dresses worn by the physically handicapped, elderly woman. The following were sub-objectives:

1. Determine if there is an actual need for specially designed clothing for members of the sample group.
2. Determine the awareness of the nursing home staff members concerning fashion therapy, clothing departments in institutions, and existing suppliers of clothing for the physically handicapped.
3. Determine if the previous research regarding clothing for the physically handicapped can be applied to those who are 65 years of age and older.
4. Summarize and tabulate these findings and related facts in a descriptive manner.
5. Recommend appropriate clothing designs for the physically handicapped.

The Assumptions

Based upon the literature reviewed, it was assumed that:

1. There is a lack of available, attractive, and functional outerwear for the physically handicapped woman, 65 years of age and older.
2. In order to design and produce such clothing, it was first necessary to identify the specific functional and aesthetic

clothing needs for each type of physical handicap, and to relate these findings to existing knowledge of clothing for the aged.

3. This goal can best be reached by surveying the ideas and opinions of nursing home personnel and patients as to what constitutes attractive and functional clothing for the physically handicapped and aged.

Definition of Terms

The following are definitions of terms as used in this study:

Ambulatory--capable of walking; not bedfast.

Bedfast--patients who are confined to their beds for much of the time, but who are often encouraged to dress in street clothes and leave their beds on occasion.

Elderly--men and women who are sixty-five years of age or older.

Geriatrics--the science of the medical and hygenic care of, or the diseases of, aged persons.

Key Personnel--members of the nursing home staffs, who because of their professional positions or contacts with patients, are capable of expressing authoritative opinions on clothing for the aged and physically handicapped.

Nursing Home--institution which serves as a place of residence for senior citizens; living arrangements may consist of private or semi-private rooms; health care is usually not rehabilitative in nature.

Outerwear--articles of clothing which exclude shoes, lingerie, coats, and accessory items. Examples of outerwear are blouses, skirts, dresses, slacks, sweaters, gowns, and robes.

Physical Handicap--bodily disorder, malfunction, or injury which limits mobility or renders normal physical activity impossible.

Retirement Home--organized housing for senior citizens which offers standardized accommodations designed for the elderly; social events and group activities are emphasized. Although a health clinic may be situated on the premises, general health care is minimal.

Therapeutic--pertaining to the treating or curing of disease.

CHAPTER II

REVIEW OF LITERATURE

The Physically Handicapped

Definition and Historical Background

Throughout the ages, in every culture, the handicapped have constituted a percentage of the population. This sect of people includes those with physical, mental, or emotional disabilities, and the economically and culturally deprived. (48) The attitude of primitive man toward the disabled has been dominant through thousands of years of human history. In the earliest centuries of civilization, man had unwritten laws that the crippled and disabled be sacrificed for the good of the group. Eventually, the ancients made these inhumane practices into written laws, and those laws existed for many centuries. Even today, much of the repugnance and distaste with which the handicapped have been regarded throughout history still prevails. However, since 1930, more advances have occurred for the handicapped than ever before. (23)

Statistics

Although it is impossible to determine the exact number of physically handicapped persons, there are approximately 22 million within the United States. In addition, 425,000 more persons become

handicapped each year through accidents and disease. (48)

Areas of Need

This sizeable group of people is in need of help, and those in the rehabilitation field endeavor to improve the lives of the afflicted.

> Rehabilitation is an individualized process in which the disabled person, professionals, and others, through comprehensive, coordinated, and integrated services, seek to minimize the disability and its handicapping effects and to facilitate the realization of the maximum potential of the handicapped individual (and his family). (2)

Some of these areas in need of special help are handicapped homemakers, homemakers with handicapped children, the visually impaired, and the mentally retarded. (48) The four basic areas where treatment is most needed are 1) job objectives; 2) job-seeking skills; 3) job retention; and, 4) personal help, such as grooming advice. (18)

Socio-Psychological Factors

Much of the progress in rehabilitation of the handicapped has been medical in nature. Much remains to be done in the area of socio-psychological attitudes of the handicapped. Geis (16) has found the psychological problem of personal worth to be the psychodynamic (the central) problem of all patients. Our culture has put great emphasis on success and personal attractiveness, something which the physically disabled cannot always achieve. This cultural attitude increases unnecessarily the sociological pressures upon the handicapped, and they consequently feel even more abnormal.

Physical handicaps of the elderly are usually chronic rather than acute. This factor also affects the socialization of the afflicted. Oyer and Paolucci (34) reported,

> chronic conditions often have a greater impact on the individual, his family, and society than do acute illnesses and injuries that attract more public attention . . . . Illness and/or disability, although different concepts, may be viewed as critical interventions that change role relationships. They become problems when they interfere with a group member's capacity to meet the social obligations of his role.

Other research studies have dealt with the self-concept of handicapped persons, especially those involving attitudes toward the body. Schwab and Harmeling (39) in a study involving 124 in-patients, discovered "medically ill patients express more negative feelings toward their bodies than healthy persons . . . and tend to focus dissatisfaction on the body part or function affected by illness." In the group studied, twenty percent showed general dissatisfaction with their bodies as a whole, and females showed greater dissatisfaction than males.

Kurtz and Hirt (24) investigated the relationship between physical health and global attitudes toward the outward form and appearance of the body. Two groups of twenty college students composed the sample. Although matched in educational level and socio-economic status, one group had chronic illnesses while the other group did not. The results indicated that chronically ill patients evaluated their bodily appearance more negatively than those in the normal group.

Rehabilitation of the Physically Handicapped

Future, rehabilitative efforts must strive to build the self-respect and self-concept of the physically handicapped. This will be a necessary and preliminary step in "humanizing" the afflicted. At a recent American Home Economics Association workshop, O'Toole (52) stated, "Rehabilitation is an intermingling of the practical objective

of restoring the individual to productivity and the humanitarian concern for the individual's dignity and self-respect."

May (29) has offered the following guidelines for effective rehabilitation of the handicapped:

1) Be informed on the needs and resources in your community for the rehabilitation of the handicapped.

2) Know which local and federal laws relate directly to the handicapped.

3) Determine the immediate and long-range plans for the rehabilitation of the handicapped in your community.

Several techniques have been investigated to improve the social behavior and attitudes of handicapped people. The "reinforcement" method was used by Hunt, Fitzhugh, and Fitzhugh (21) in a study involving twelve institutionalized mentally retarded male patients. In an attempt to improve the dress behaviors of the patients, the researchers used different reinforcement techniques during a 34-day period. It was found that reinforcement procedures were effective in terms of temporarily improving on-the-job appearance of the sample group, and that the intermittent type of reinforcement proved the most effective.

Previous research has been aimed at the patient doing some type of activity, but Geis (16) favors the "being" approach in socio-psychological treatment. He strives to encourage and increase the feelings of self-worth within the patient. Instead of feeling the need to accomplish a task or to be successful in doing some activity, the patient will feel worthwhile because of his personal values, beliefs, and intrinsic characteristics.

Often a patient is treated for his handicap and then released into a strange world to which he is unaccustomed. He needs some type of

rehabilitation which will prepare him for his return to the outside world and help him adapt to this new environment. A "follow-up" rehabilitation service would provide pertinent information needed by the individual, such as learning the steps involved in building an adequate wardrobe. (12)

Many sources offer rehabilitative help to the physically handicapped, one of which is the voluntary health agency.

> The leadership of private agencies is looking for new ideas. These new ideas should be drawn with a fullness of concept by those among you who are able to formulate projects with a degree of specificity that makes execution of the main concepts feasible . . . . Our concern is both the role of the voluntary health agency in rehabilitation and the role of home economics in the comprehensive approach to serving the unmet needs of people in distress. (8)

Home economists are capable of providing "well-rounded" socio-psychological rehabilitative programs. Rehabilitation has been mainly medically and educationally oriented in the past. Home economics can bridge the gap between these two areas, and concentrate on <u>family</u> rehabilitation. (12)

The community can also be a dynamic and effective force in rehabilitation. Conwell (5) has devised a model which represents a total community approach to patient care. Many community resources are needed to totally rehabilitate the handicapped. Administration and coordination, personnel, research and training, facilities and funds are necessary in a comprehensive community approach to preventive and therapeutic care. He furthur advises: "Really listen to the patient, for it is the patient who expresses the changes needed in a community."

Those engaged in the rehabilitation process are deserving of praise. Voltaire (52) said of these professionals,

> Men who are occupied in the restoration of health to other men, by the joint exertion of skills and humanity, are above all the rest of the earth. They even partake of divinity since to preserve and renew is almost as noble as to create.

The Aged

Statistics

In recent years, the aged population of the United States has become a subject of great interest and concern. Senior citizens have increased greatly in numbers as well as percentage of the total population. In fact, the rising census figures are due mainly to the increasing percentage of youth and the aged within our society. (50)

> The aged are supposed to be America's forgotten people. Actually, they are becoming more visible all the time. For one thing, they are increasing in number. Today (1971) 20.5 million Americans are 65 or older. As their problems grow, demands for attention become more insistent. (3)

To illustrate the magnitude of 20.5 million people, this number exceeds the population of our 20 smallest States by over one million. (49) The percentage of the aged is increasing at a rapid rate. For example, in 1960, only ten percent were sixty-five or older. Census experts predict that by 1975, there will be 22 million in this group; by 2000, 30 million. (20)

Most Americans are aware of the increasing percentage of senior citizens, "but what has not been as widely recognized is the fact that people are living more often into the oldest ages." (49) The "over-75" group is increasing greatly, and this has far-reaching implications for the services needed by the aged. (20)

The aged, as a group, frequently suffer from a multiplicity of ailments. Approximately 20 percent have limited mobility. Many aged

are afflicted with some type of chronic disease such as heart disease, arthritis, diabetes, visual impairment, and cancer. (49)

Need for Health Services

The number and physical health of people who are sixty-five years of age or over indicates a need for comprehensive services to the aged. (20) However,

> The steady increase in the numbers of old and 'older' old persons in the population is particularly significant in view of the fact that chronic disease, long-term illness, and disability comprise the bulk of the health problems of adults in their later maturity. Consequently the increase in the need for preventive and therapeutic services for this age group will be greater than the increase in number suggests. (49)

Substantial financial aid is required to provide and pay for needed medical services. "It is an undisputed fact that medical needs and the cost of meeting these needs rise with declining health, and that the impact of chronic diseases is greatest among the elderly." (49) Elderly patients comprise most hospital admissions and these individuals stay for longer periods of time. The elderly use more prescribed drugs, and higher utilization of services and expensive drugs by the elderly has been predicted. (49) Demands are made on the medical profession to increase not only the amount of care to the aged, but to improve efficiency in the delivery of care. New knowledge in preventive and therapeutic medicine is needed. (49)

Factors Affecting Health

There are three main types of factors affecting the health of the aged: biological, socio-psychological, and emotional. Although each

is a distinctive category in itself, the three factors are also interdependent.

According to recent research studies, a new conceptualization of the geriatric patient has evolved. Biological factors are now determined by the speed of self-consumption, or the rate at which an individual is using his given amount of ability to cope with stresses. This rate of wear and tear which the body has undergone determines the true biological age of a person. (51) Symptoms of the aging process are now expressed differently, for "while chronic diseases have grown, death rates from infectious diseases have declined . . . . Aging probably has a basic relationship to chronic disease, which is a growing challenge to research and therapy." (49) Of those 65 and older who have one or more chronic conditions, 59 percent have some limitation of activity. One-third of those having some mobility limitations are so disabled that they are unable to carry on any major activity. (20)

The socio-psychological components affecting health concern such topics as attitudes of society, stress, retirement, mental problems, poverty, bereavement and death, and distinct personality types. "The term 'health' should be used in a broad sense, for it embraces well-being and related factors which bear directly on health." (20)

> The state of the aged in our society has been somewhat improved, yet the dismal tale of neglect, of untended ills, or discrimination, exploitation, humiliation, loneliness, and privation continues to be told. The aged have gained important benefits in the past thirty-five years. But in some ways their plight has worsened. (3)

"Many problems are created for the elderly because society reacts not on the basis of scientific knowledge but according to the myths and stereotypes with which it has surrounded 'old age.'" (49) For example,

involuntary retirement at age 65 may be a crushing blow to a man who wants to keep working and has many productive years ahead of him. In addition, forced retirement may result in a severely reduced income, somatic illness, and deflated ego which may ultimately cause personality difficulties and mental problems. (49)

The sociological components are often connected with stresses related to occupation, environment, family, and community. These stresses are capable of producing emotional inequilibrium. "Aging has been thought of as vulnerability to stresses." (49) The individual can no longer cope with or adapt to problems which confront him. For example, the aged are often unable to compensate to stress imposed by illness. (20)

After retiring, a man unaccustomed to relaxation and recreation has little or nothing for which to hope after retirement. American culture tends to reject the aged because life emphasizes tension, compulsion, work, and competition. (51)

> The statistics imply that the retirement years are quite demanding: they call on the elderly to change roles and status in a society that emphasizes youth. For many elderly persons, the shift is from independence, participation, and leadership to dependence, passivity, and exclusion--not only in economic and community life but also in the family. Many elderly persons live in a world dominated by leisure time but with reduced incomes and increased chance of ill health. (49)

Virtually every study on the aged refers to lack of money as a fundamental handicap. Approximately one-fourth of the aged live below the federally defined poverty level. For them, poverty may be a long-standing economic deprivation which has increased with age. For others, poverty may have begun when the family breadwinner retired. This condition has been especially true of non-white Americans. (3)

Though old people form ten percent of the population, they account for 20 percent of the poverty and 27 percent of the health-care expenditures in the nation. Their illnesses and disabilities tend to be more numerous and more costly. Medicare meets, on the average, only 43 percent of their medical expenses. (3) Of those hospitalized, 95 percent are poor. (50)

> For many of the elderly, illness serves as a major cause of poverty by reducing their incomes; conversely, poverty can be a major contributory cause of illness when it serves as a barrier to receiving adequate medical care . . . . Recent studies indicate that about thirty per cent of the elderly have assets of less than $1000 each. Such persons may have sufficient protection through Medicare or other insurance to provide adequate protection for short-term illness; however, when long-time illness occurs, their financial assets may be quickly drained. (49)

Of those who are not hospitalized, many of the aged live "in substandard housing, largely in depressed urban areas. Half the elderly have little beyond an elementary school education." (49)

Many of the aged feel rejected, and are often treated as burdens to the rest of society. In other cultures, the aged are often looked upon with respect and love, and considered sources of great wisdom and experience in life. Because the United States is geared for fast-paced, hectic lifestyles which value time and money above all, the aged are often forgotten and excluded from social gatherings. Victims of the generation gap, the elderly withdraw from the outside world and are often left "alone and isolated in the decaying city." (3)

There may well be a direct relationship between physical and mental health. For example, "geriatric psychiatry is placing more emphasis on seeking mixed causes of mental illness in older persons, taking into consideration possible interactions among physical illness, mental illness, and social illness." (49)

Emotional components are capable of affecting health in the individual. For example, the economical, social and medical dependency needs increase with age. Many cannot accept aging as a natural process and experience the fear of losing physical attractiveness, strength, potency, and the loss of life. To combat these fears, the elderly should concentrate on the following positive aspects of old age: understanding of life, patience, experience, and wisdom. Hope for the future is also an important positive emotion. (51) Old age can be a period of loneliness, especially for women. More than fifty percent of all elderly women are widows. Most men in this age group live in families with their own spouse, while only a minority of women do. (49)

According to the stereotype, the elderly are anxious about death.

> But the fact is that younger persons are more likely to be concerned about death. Older individuals are probably more worried about money . . . . The dying person experiences a growing feeling of helplessness over his environment, but he has an increased interest in other people . . . . Information such as this suggests that perhaps the greatest disservice that can be done to the dying person is to isolate him. (49)

There are three clear-cut personality types associated with high life satisfaction, and these individuals adapt in various ways to the aging process. The "mature" types accept aging, adjust well to losses, and are realistic about past and present lives. The "armored" types cling to middle-aged behavior patterns, deny aging, keep busy, and get along very well. Finally, the "rocking chair" types accept passivity, sit and rock without feeling guilty. Above all, to be truly happy,

> the elderly person needs somebody to live for, something to be deeply interested in, something to permit him happiness and fulfillment. Life has to remain meaningful and purposeful. If the goal of life is lost, he becomes emotionally sick and is more prone to physical complaints. This important factor of life goal therefore deserves special consideration in any emotional rehabilitation program for a geriatric patient. (51)

Rehabilitation Programs

Rehabilitation of the aged is becoming an increasingly controversial subject. A slow rise has occurred in the proportion of elderly persons in nursing homes, chronic disease and mental hospitals, and other institutions, from about 2.5 percent in 1940 to four percent in 1960. (49)

Who are the institutionalized aged? A study investigating the characteristics of this group found that most were female, Caucasian, widowed, have lived alone, are financially disadvantaged, and tend to be mentally and/or physically impaired. (35) There is currently a trend away from those "whose condition will not create difficulty or discomfort to others" to residents who are chronically ill, mentally and/or physically impaired, and in need of long-term care. (17) The mean age of women applicants was 79.2 years, according to the 1967 Galperin study. (15) Lieberman (22) found that most institutional environments exert negative effects on the elderly individual with resulting depersonalization and various psychological losses.

The following observations and projections have been made regarding nursing homes: growth in bed capacity increased eleven percent from 1963-1967; expenditures have been increasing twelve percent per year since 1950; by 1980, bed capacity will reach three million (only 385,000 in 1967). (20)

Nursing home health care for physical, mental, and social illness is usually therapeutic rather than preventive. (20) Although some homes provide adequate programs and facilities for the aged, many do not.

> Despite the ever-increasing state hospital admission rate of elderly persons, any movement to provide adequate programs for them has been minimal. The trend all over the country continues to be that most hospitalized geriatric patients will remain there for the rest of their lives, and this sense of resignation is transmitted to the patient. (9)

> Some of the behavioral deterioration observed in institutionalized geriatric patients appears to be the result of not only the physical aging process but also the result of the institutional atmosphere which fosters functioning at below-optimum capacity. (9)

> Most desperate of all is the condition of the infirm confined to substandard institutions. Approximately one million elderly persons are in institutions, principally the nation's 24,000 nursing homes. (3)

Nursing homes are big business, and the humanitarian purposes for which they are built can easily be obscured. Congressman Pryor (3) from Arkansas views nursing homes as agents in the "commercialization and dehumanization of the aged."

Because of poor programs, facilities, and impersonal care, the patients may become little more than living bodies.

> We usually encounter the typical facies of the semi-invalid in a so-called retirement home of today. This person has not laughed or cried in years, but has the suppressed, emotionless countenance that sees one day pass into the next with only the haziest perspective. (43)

Health workers, either in private institutions or in public service,

> generally receive an unbalanced view of the elderly . . . . To have thorough understanding of older people, practitioners should see them as members of society and its social systems, including kinship groups, neighborhoods, and communities. (49)

Home economists should not be overlooked as a source of meaningful rehabilitation for the aged. These professionals are capable of developing projects which relate to the skills of daily living and offer a challenging and enjoyable pastime to the aged as well. (18)

Clothing for the Handicapped and Aged

Clothing Programs for the Handicapped

Interest in clothing for the handicapped began shortly after World War II. At that time, several programs were developed to aid war veterans with physical disabilities. However, the first program for handicapped civilians did not begin until 1955. The Institute of Physical Medicine and Rehabilitation at New York University Medical Center sponsored the program. "Functional Fashions," as the project was named, was headed by designer Helen Cookman. Her philosophy was that clothing for the handicapped could be functional, becoming, and fashionable. (26) "Functional Fashions" were designed for ease in dressing, increased social acceptance, and durability. This independent, non-profit organization attempted to manufacture specialized clothing for the physically handicapped. Unfortunately, there was not as large a demand for these items as had been anticipated. In recent years, several high fashion houses have produced garments with this label. (37)

Since 1955, many projects have been organized in the United States, England, and Canada. Common goals for these establishments are to create safe, comfortable, convenient, protective, serviceable, and functional garments for those having physical handicaps. (26)

The Agricultural Research Service of the U. S. Department of Agriculture has shown consistent interest in clothing for the handicapped. In 1959, Scott reported results of a survey she had made of seventy handicapped homemakers. Data were obtained on the clothing worn by the homemakers, as well as information regarding their clothing

preferences and dislikes. Based on the survey information, approximately twenty garments were designed and published in a government bulletin. (19)

In 1962, The Vocational Guidance and Rehabilitation Service began to offer clothing for the handicapped and elderly. Dorothy Behrens designed the clothing, and handicapped personnel constructed the garments. The reasonably-priced merchandise is offered through direct mail service. A measuring chart and price list are included to promote catalog sales. (7)

"Fashion-Able" offers reasonably-priced undergarments for disabled, ambulatory women. Mrs. Van Davis Odell, who is physically handicapped, heads the organization and designs some of the merchandise. The "Fashion-Able" line is sold through a catalog service. (7)

Miss Virginia Pope heads the Clothing Research and Development Foundation. Its clothing designers are well-known professionals who have agreed to design clothing for the physically handicapped in addition to their regular collections. (31)

Ruth Smith (41), organizer of Solve Industries, is also a registered nurse and nursing home supervisor. Her first project was a pair of men's slacks which could be put on a seated patient in a matter of seconds. Solve Industries strives to design clothing which adds dignity to the handicapped, and also saves time and energy needed in dressing the patients. Speaking at the Minnesota Governor's Conference on Aging, she said, "Let's not only add more years to their life, but let's add more life to their years!"

Although the United States Department of Agriculture is government-operated rather than privately-owned, it has also been a helpful source

of information. Some booklets published by this agency offer suggestions on sewing and altering clothing for the physically handicapped.

Current Projects

Participants in a 1966 seminar held in Cleveland, Ohio, agreed that interest in clothing for the handicapped is increasing and special clothing problems are being recognized. Previously, little attention had been given to practical clothing and ease in grooming. Among the items discussed were costs of special clothing, feasibility of producing clothing from tested patterns in workshops and home-bound programs, clothing as an enhancement of the rehabilitation process, and the importance of looking employable. Major highlights gleaned from the seminar were the following: clothing problems of the handicapped have often been passed over as less important; rehabilitation seeks to minimize handicaps and emphasize the likeness to the non-handicapped person; clothing can minimize disabilities, increase comfort and self-assurance; and, clothing can be a valuable rehabilitation measure. (14)

In 1969, May (30) proposed a world wide clearinghouse of information concerning the handicapped. This agency could collect all printed material on the handicapped, store the information, and disseminate any publication upon request. Since that time, a committee has been organized to further research the clearinghouse project.

The Women's Federated Clubs of America have also initiated a project concerning clothing for the handicapped. If a chapter so desires, it may sponsor a contest among its members. Rewards are given to those designing the most practical, comfortable, and fashionable garment for a physically handicapped person. Local winners may then

compete nationally.

Previous Research Findings

Approach and Introduction. According to the literature reviewed, a definite need exists for clothing for the handicapped. Few clothing manufacturers are aware of the clothing needs of the physically disabled, and do not realize the existence of such a sizeable market. (28) "Fashions cater to needs of the chubby child, tall person, pregnant woman, and large person--why aren't the needs of the physically disabled considered?" (46)

Hallenbeck (19) reported that some clothing research has been performed for handicapped children, but much more research is needed concerning clothing for handicapped adults. May (30) has said,

> There have been a number of good beginnings in research in clothing for the handicapped and the older age group . . . . A great deal more needs to be done in clothing design and in the adaptation of patterns to suit the special needs of the handicapped.

The first requisite of special clothing is to solve the problems of the disabled person. (27) In order to satisfy this requisite, it is first necessary to analyze the activities of the handicapped person, then determine where difficulties and problems exist. (6)

Basically, the disabled have two kinds of needs. Physical needs include self-help in dressing, comfort, and the absence of strain on the fabric. Psychological needs require that the appearance of the disabled is attractive and similar to those of their peer group. (19)

May, Waggoner, and Boettke (31) offered the following guidelines in the selection and adaption of clothing for the handicapped:

1) Independence in Dressing (easy-on and easy-off, easy to fasten)
2) Improved Appearance (designed to camouflage)
3) Comfortable (allows for movement, adjustable, fits, prevents accidents, protects)
4) Durable (fibers, fabrics, and construction techniques)
5) Easy Care (fabrics, design, construction, and permanent-care labels)

Hallenbeck (19) listed self-help in dressing, comfort, and elimination of fabric strain as the major factors to consider in clothing the handicapped. She also suggested that the physically handicapped be divided into two groups, those who are able to dress themselves and those who require help in dressing. Then, she advised a further division in terms of physical problems of the patient. For example, those wearing braces or crutches require fabric reinforcement and fuller-cut garments; those in wheelchairs need amply-cut back bodices and underarms, adjustable waistbands, appropriate sleeve length and styles, and skirts having proper fullness; and, those with limited finger action need easy-to-manage fasteners. Special clothing should be categorized by the physical problem with which it copes. (19)

Research on Clothing for the Handicapped. Previous research studies on clothing for the physically handicapped have dealt with one type of disability separately. This section is a resumé of findings from previous research.

In a study of clothing for handicapped children, Frescura found these clothing features were helpful: over-the-head styles; durable, comfortable, absorbent, wrinkle-resistant, and easy-care fabrics; double bodices and skirts for durability; gussets in underarms for ease and durability. (7)

Zaccagnini (53) investigated clothing problems of the cerebral palsied child. Various fasteners were used in knit shirts, and large

zippers were preferred over pressure tape (Velcro), oval clasps with rings, and snaps.

Women with rheumatoid arthritis were the subjects for a study by Madsen (28). She found that most ready-to-wear dresses marketed for the physically handicapped must be custom-designed and special-ordered. She therefore attempted to adapt several ready-to-wear dresses so they could be worn by arthritic women. Findings of this project indicated adaptations of ready-to-wear provide the variety and pleasure of selecting ready-to-wear and also provide garments suited to the needs of the individual. For certain types of handicaps, Madsen also found that clothing which is especially designed or altered for the individual promotes adjustment to the disability both physically and psychologically.

Hallenbeck (19) has classified the clothing needs of various types of handicapped people. Her basic assumption is that special clothing must solve the problems of the disabled person. "From the point of design and production, it is the physical disability left by disease or injury, and not the cause, that is the essential factor." She has also compiled a resumé of previous research projects on special clothing for the handicapped.

Roth and Eddy (36) conducted an investigation of the dress of hospitalized, elderly patients. In the hospital used for the study, patients were encouraged to wear their own street clothes. It was considered a sign of progress if the patient dressed in this manner. Patients with high reputations wore their own clothing, but those with low reputations (isolates, alcoholics) wore hospital-issued clothing. A high value was placed on patients appearing neat, clean, and

attractive. The appearance of a patient affected his assignment to a ward. The ideal patient, according to the medical staff, could dress himself and maintain a neat appearance.

Miller (33) conducted a study to determine changes which take place in clothing behavior when women sixty-five or older leave homes of their own and move to retirement homes. She found relationships between increased frequency in shopping and high education levels, and also between clothing consciousness and older age. Shopping habits changed after the women moved to the retirement homes, and the following trends were discovered: decreases in the importance of clothing, amount of money spent on clothing, and the frequency of ordering clothing by mail; increases in phone and mail orders, clothing gifts received, amount of cosmetics used, and amount of help needed in selecting clothing.

Clothing Problems of the Aged

Biological Problems. As a woman enters middle age, her body proportions begin to change. The face thins, abdomen and hips expand, the legs get thinner, and the waistline almost disappears. These changes become more accentuated with time, until the older woman can no longer wear standard-sized dresses. Finding ready-to-wear clothing that is comfortable often becomes a problem. As glandular secretions decrease, the skin of the elderly becomes thin, dry, and inelastic. Rough textures and heavy fabrics, as well as extreme temperatures, may irritate the skin. (20)

> One of the most noticeable changes as one grows older is that the body grows shorter . . . . This loss in height is caused by a progressive bending and shortening of the spinal column,

> a bowing of the head, and a general involution of the skeleton . . . . The shifting of body fat, which began in middle age, becomes more pronounced with the years . . . As the face thins out, abdomen and hips expand, and the legs get progressively thinner . . . . In women, this condition is exaggerated by the elongation of the breasts . . . . Obesity is more often a problem in old age than thinness. The skin over the body becomes dry, thin, and inelastic. (45)

Sociological Problems. As age increases, social activities and contacts with others tend to decline. The elderly may become apathetic to clothing and appearance because there is nothing or no one for which to dress. This lack of interest in clothing may indicate the withdrawal of an individual from society and may signal the lowering of self-image or self-worth.

Hoffman (20) found that nursing homes offer frequent interpersonal contacts and an active social life. Clothing becomes more important for the nursing home residents and may offer therapeutic value as well. For example, clothing can be a source of compliments, adding to the sense of well-being. Clothing can set the tone for an occasion, or can add importance to an otherwise commonplace event. The wearing of daytime clothing (as opposed to loungewear) creates a feeling of recovery to normal health. When the patients are allowed to choose their own clothing, it has the therapeutic value of achievement, personal control, and expression of individuality. New clothes can be a link with the outside world, and convey a sense of the future rather than the past.

Clothing Preferences of the Aged

In an investigation concerning clothing preferences of elderly women, Ebeling (10) found that design and fit are considered more

important than price or ease-of-care. In the sample group studied, those from lower income groups had more difficulty finding clothing which fit properly. The following styles were preferred by members of the sample group: medium height heels, medium weight hosiery in light colors, one-piece dresses with jackets, V-necklines, three-quarter-length sleeves, gored skirts at calf-length, fabrics with small designs in subdued colors. Of those answering the questionnaire, approximately one-half wore skirts and blouses, and some wore sports clothes.

Arthritics, according to Madsen (28), listed these dress factors in order of importance: comfort, attractiveness when worn, ease in dressing, and fashionably attractive. Dresses which were easy to put on and remove were highly favored.

Shipley and Rozencranz (40) found over seventy-five per cent of women, fifty-five and older, were interested in style changes and wanted more variety in their clothing. Buyers were considered too conservative by the researchers, and a very low percentage of inventory catered to this age group. Of the women interviewed, the majority favored the following style features: side openings, three-quarter-length sleeves, mid-calf length, gored skirts, necklines with collars, V-necklines, one-piece dresses, solid colors, small prints, and subdued colors (navy and light blue).

Latzke and Quinlan (25) stated that "the dress design of the mature woman should express simplicity and distinction." The neckline, sleeve line, hip line, and hem line should receive special consideration. They agreed with the following Japanese theory: "the choice of design in the fabric suitable to any given age is worthy of serious consideration."

Hoffman (20) suggested, "Most preferences stem from need for becomingness and functional convenience . . . . Color provides stimulation which is needed by women of all sizes and aesthetic sensitivity is not determined by body size." She lists the following as clothing preferences of older women: gored skirts, three-quarter-length sleeves, V-necklines, round necklines starting a few inches below the neck, and front openings extending below the waist or to the hem.

Clothing Design and Production

Special clothing for the handicapped need not be complicated, highly-priced, or limited to only one type of handicap. Simplicity is the key in designing, but fashion and appearance must be considered. (32, 27) A basic concept to the design of special clothing is that one garment should offer solutions to problems involved in many disabilities, not a separate design for each type of handicap. (6) It is possible to design garments which incorporate a number of special features and can be used with different types of patients.

Hallenbeck (19) stated that mass production of outerwear is not feasible, for there are too many variable factors. To obtain a neat appearance, the disabled must be custom-fitted or furnish the seamstress with very detailed and accurate measurements. In addition, the special needs and aesthetic preferences of the individual must be considered. Therefore, it is not possible for the manufacturer to mass produce special clothing on a large scale.

McGuire (32) indicated that special clothing for the handicapped could be produced successfully because of the following reasons:

1) The clothing industry should realize this is a much-needed area of specialization.
2) It is not profitable to design for only one individual handicap.
3) Many features desirable for the handicapped would be beneficial for the non-handicapped also. This would offer a much broader outlet for merchandise.
4) Clothing features such as sturdy fabrics, extra stitching, bright and cheerful colors, and low cost are needed by handicapped people, but could be produced for the non-handicapped as well.

MacGregor (27) stated that mass production of special clothing is impossible, and efforts should be directed toward the development of patterns for home sewing. Only several basic dress patterns would need to be produced by the commercial pattern companies. The garments could then be adapted to suit the particular disability, and style features could be varied. (46)

Socio-Psychological Aspects of Dress

Clothing is one of the basic needs of man in addition to food and shelter. However, "data from a 1952 California survey show that clothing is the second most frequently unmet need for persons beyond retirement age (medical care and drugs constitute the first unmet needs)." (38)

Dress assumes an important role in interpersonal relationships, especially first impressions. Its influence is two-fold for it affects the way one is treated by others as well as affecting one's self-concept. There is a definite relationship between appearance and individual security, and a correlation between clothing values and individual security. Flugel suggested that apart from faces and hands, what people actually react to are clothes, not bodies. Dress provides cues to sex, occupation, nationality, and social standing. Flugel

wrote, "Clothing enables us to make a preliminary adjustment of our behavior toward him long before the more delicate analysis of feature and of speech can be attempted." (11)

According to Hartmann (11), clothing behavior is a neglected, but permanent, part of educational and social psychology. Psychological factors of dress concern self-image, social isolation, and feelings of worth. Clothing of the handicapped person plays an important role in first impressions, can improve the self-image of the handicapped, and aid progress in rehabilitation. (53) "Clothing should enhance one's self-esteem and be psychologically satisfying." (48) Reports of case studies indicate that when patients feel better physically, psychologically, or emotionally, their appearance also improves, and vice versa. (43)

Three categories of psychological needs pertaining to clothing exist. According to Bliss, affectional, ego-bolstering, and ego-defensive reasons determine why one dresses as he does. (11) For example, clothing can build the self-esteem of the elderly, thereby bolstering the ego. (1)

Cookman stated, "One's clothing tastes don't change just because she happened to be in an accident." (7) In her opinion, the importance of clothing does not diminish, and its social and psychological effects may be more evident on the handicapped person.

Rehabilitation and Clothing

"Rehabilitation is based upon the concept of the worthiness of the individual and upon the idea that every individual should have an opportunity to reach his full potential." (50) The main objective in

rehabilitation is for the handicapped to be able to care for his daily needs, and dressing is one of these daily tasks. (53)

The self-image of the handicapped person is very important in the process of rehabilitation. Treatments involve much more than physical restoration and vocational training.

> The opinion the physically handicapped person has of himself (his self-concept) may determine whether he can be rehabilitated successfully. Self-evaluation depends, to a great extent, upon interaction with other persons and upon perceived evaluation by others. (44)

In a study involving blind students, Friend found that appearance evaluation and clothing value were related for all students. For the visibly handicapped, these factors also related to self-concept. (13)

Clothing has been used as a rehabilitative measure in institutions. "'Fashion therapy' is an activity through which patients are encouraged to improve personal appearance through disseminating information about current fashions and methods of personal grooming." (11) In the early 1960's, the Fashion Group of San Francisco began "fashion therapy" programs in several mental institutions. By informing women patients of the latest news in fashion and grooming, the project produced dramatic results in patient confidence, morale, and appearance. Acute patients, as well as those about to be released, participated in the activities and were put in touch with the outside world. Because of their success, the Fashion Group leaders held seminars to train leaders from other United States cities and France. By 1962, eleven cities had adopted "fashion therapy" programs. (47)

The following case studies illustrate the relationship between rehabilitation and clothing. Brudno and Seltzer (4) conducted a program designed to re-socialize eleven female patients suffering from

senility and distortion of the past. The patients were exposed to activity-oriented socialization such as eating meals together. Gradually, some of the patients asked for wearing apparel to look more presentable.

> After the first two meetings, group members became appropriately concerned with their personal appearance. All but one patient asked for clothes. The patients took the time to look into mirrors, to comb their hair, to put on lipstick and jewelry. They made it a point to dress up for each meal.

Dubey (9) reported similar results with Mrs. Y, who was a non-ambulatory, 90-year-old patient. Mrs. Y disliked wearing dresses others had chosen for her, so staff members offered to take her on a shopping tour. She agreed, and selected three comfortable and becoming dresses. Dubey then reported,

> Later, when I visited her, she was wearing one of her new dresses, beaming with pleasure, and thoroughly enjoying the interest the dresses had aroused in the other patients . . . . Mrs. Y especially enjoys getting dressed up in one of her self-selected dresses for these special occasions.

Additional research is needed in the area of clothing rehabilitation, but new financial, promotional, and educational sources must be tapped. Financial resources for rehabilitation are increasing. In 1950, only $18 million was received compared to $640 million in 1970. (50) Currently, sources for special clothing are in conjunction with rehabilitation agencies, but new types of promotional sources are needed. Continued promotion could have a positive effect on the dignity and attitudes of handicapped persons. (14) In order to share rehabilitation knowledge, the United States Social and Rehabilitation Service (SRS) has established a Research Utilization Branch. Its task is to promote dissemination and utilization among rehabilitation agencies. (42)

Because of their knowledge in the areas of clothing and family relationships, home economists are capable of making a great contribution in clothing rehabilitation. The acceptance of home economists as "rehabilitation workers" is increasing, and indicates new career opportunities for future home economists. (30)

CHAPTER III

DESIGN OF INVESTIGATION

Selection of Sample Group

Four nursing homes located in Stillwater, Oklahoma, were chosen as sources of information for this study. Administrators in each of these homes were contacted, and after learning the purpose of the study, permission was granted to use the respective staffs and patients as participants in the investigation.

The names and physical conditions of nursing home residents as well as the names and professional positions of nursing home personnel staff members were obtained from each institution. It became apparent that patients from two nursing homes primarily for mentally handicapped patients would not constitute an acceptable sample group, since this study was limited to physical handicaps. As a result, two nursing homes were chosen for this study: Westhaven Nursing Home having 48 physically handicapped, elderly women, and Stillwater Nursing Center with 69 physically handicapped, elderly women.

The staff personnel lists were reviewed, and "key personnel" were identified, i.e., those who would be most knowledgeable on the subject of clothing for the physically handicapped. Registered nurses, licensed practical nurses, arts and crafts directors, laundry personnel, and nursing home administrators were thought to be possible sources of information.

The patient lists were examined for types and frequency of physical limitations. The types of handicaps were then categorized into five groups, each requiring a separate approach in clothing treatment. The five classifications identified were: wheelchair patients; chronically ill and ambulatory patients; patients wearing leg braces or leg casts; crutch cases; and, bedfast patients.

Development and Distribution of Staff Questionnaires

A questionnaire designed to obtain opinions from nursing home personnel was developed by the researcher and distributed to 20 staff members in the two nursing homes. The questionnaire consisted of three major sections, 1) general information concerning clothing for the handicapped; 2) specific information about the clothing programs and problems of the particular institutions; and 3) specific information regarding clothing styles and features appropriate for the aged physically handicapped. (Appendix A) The questionnaires were distributed to the staff members, and the completed forms were collected 10 days later. After the questionnaires were collected from the nursing homes, they were examined and all responses were tabulated.

Staff Interviews

The personal interviews of the nursing home staffs constituted the next phase of the study. Ten staff members were chosen on the basis of the questionnaires which they had completed. Responses which had shown interest, originality, enthusiasm, and a great deal of thought were considered by the researcher to be indicators of a potentially

worthwhile personal interview. Individual appointments were made with the ten staff members, and each session was between 15 and 30 minutes in length.

Patient Interviews

Because of a possible discrepancy between the opinions of staff members and patients on the subject of clothing, interviews with the actual patients were thought to be a prudent step. Knowing what was comfortable and attractive to them personally, the patients could reinforce or correct the opinions of the staff members. A registered nurse from each nursing home devised a list of patients who could offer sound and constructive opinions on their clothing preferences. Ten patients, representing a variety of physical handicaps, were interviewed in their respective nursing homes.

Results of the questionnaires and interviews are recorded in Chapters IV and V. Although the questionnaire tabulations are numerically recorded (Appendix B), the greater part of the discussion is descriptive in manner.

CHAPTER IV

FINDINGS

Nursing Home Staff Questionnaires

Twenty nursing home staff members completed and returned the written questionnaires. These respondents included five licensed practical nurses, four registered nurses, four nurse aides, two nursing home administrators, an arts and crafts director, a charge nurse, an activities director, a director of nurses, and a laundress. All respondents had experienced some exposure to the clothing problems of the elderly handicapped. The staff members had been encouraged to consult patients to verify their answers and offer opinions, although the responses could be based entirely on their personal experiences with patients.

General Information

The first section of the questionnaire was concerned with general information on clothing for the handicapped. Virtually all 20 respondents indicated that a definite need for special clothing for the physically handicapped woman, aged 65 years or over, exists.

In response to a question concerning companies offering special clothing for the handicapped, 14 staff members stated they were not aware of the existence of such companies. Of the respondents who were aware of these companies, three had seen the mail order catalogs while

three others had only heard of them. None of the staff members had ordered merchandise from such catalogs nor had they ever used the special clothing with patients.

Although six of the staff members indicated that they were familiar with the term "fashion therapy," 13 staff members did not know the meaning of this term. (Appendix B, p. 69)

Clothing Programs and Problems in the Nursing Homes Investigated

The second section of the questionnaire dealt with the clothing programs and clothing problems experienced in each of the nursing homes investigated. One half of the nursing home staff respondents reported that their nursing home had some type of program concerned with clothing for the patients, while eight respondents answered this question negatively.

Ten of the staff members expressed interest in participating in a "fashion therapy" rehabilitative program. None of the respondents indicated that they would not be interested, but three were in doubt as to what such a program would involve.

Fifteen staff members reported that most of the patients' clothing was obtained through personal selection and expense. Clothing donations were another major means of supply. The nursing homes and other sources furnished a small amount of clothing.

Staff members indicated the amount of clothing interest shown by the patients varied from individual to individual. According to the staff member responses, most patients enjoyed selecting and wearing clothes. However, some patients were reportedly indifferent to the

clothes, while others formed attachments to favorite articles of clothing.

Fifteen nursing home personnel reported that the main clothing problem encountered by the patients was difficulty in putting on and taking off articles of dress, although no patients appeared to dislike clothes and the effort involved in dressing. Many staff members stated that often clothing designs worn were not adaptable to the handicap of the wearer. Other problems identified by the responses of nursing home staff members, listed in decreasing order of frequency, were poor durability and wearing quality, improper fit, lack of fashionable styles in clothes suitable for the handicap, highly-priced clothing, and the unavailability of suitable clothes.

All 20 of the respondents stated that patients would benefit from having clothing designed especially for their handicaps. Although 11 of the staff members stated that most patients were capable of dressing themselves, six of the staff members indicated that the majority of patients needed assistance in dressing. Only a few respondents reported particular complaints and negative comments made by patients about their clothing. (Appendix B, pp. 69-71)

Clothing Style Preferences for Various Handicaps

The third section of the questionnaire, concerned with the clothing style features for various types of handicaps, included a chart listing fifteen categories of style features with variations listed under each category. (Appendix B, p. 69) The respondents were to indicate what they considered the most appropriate style features under

each category for each type of handicap. In reporting the results of this section, each type of handicap has been treated separately. The findings for one type of handicap are discussed completely before discussing another type of handicap.

For those patients confined to wheelchairs, the nursing home personnel chose the shift dress as the most appropriate style. One-piece dresses were favored over two-piece or jumper styles. Other design features chosen for the wheelchair patients were V-neck or jewel necklines, convertible collars, short sleeve length (above the elbow), raglan sleeves, sleeves with a straight-hemmed finish, A-line skirts, beltless and seamless waistlines, zipper fasteners, center-front dress closures opening from neck to hem, action pleats in back bodices, washable dress fabrics, fabrics made from fiber blends, and knitted rather than woven fabrics. (Appendix B, p. 69)

Respondents preferred washable knit dresses made of blended fiber fabrics for patients who are chronically ill and ambulatory. Additional style preferences included shift-style dresses, one-piece dress types, V-necklines, either convertible or Peter Pan collars, above-the-elbow sleeve lengths, raglan sleeves, straight-hemmed sleeve finishes, A-line skirts, beltless and seamless waistlines, zipper fasteners, center-front dress closures opening from neck to hem, and action pleats in bodice backs. (Appendix B, p. 69)

For the patients who must use crutches, the respondents listed the following styles as most appropriate: shift dresses, one-piece dress types, V-necklines, above-elbow sleeves, raglan sleeves, and straight-hemmed sleeve finishes. Other appropriate styles for those using crutches were A-line skirts, beltless and seamless waistlines, zipper

fasteners, center-front dress closures opening from neck to hem, action pleats in bodice backs, action pleats in underarm seams, and washable knit fabrics made from fiber blends. (Appendix B, p. 69)

Patients who wear leg braces or leg casts have special clothing needs in order to accommodate these particular handicaps. For these patients, the nursing home personnel preferred shift-style dresses, one-piece dress types, V-neck and jewel necklines, convertible collars, short sleeves, raglan sleeve types, straight-hemmed sleeve finishes, A-line skirts, beltless and seamless waistlines, zipper fasteners, center-front openings from neck to hem, action pleats in bodice backs, woven fabrics which are made from fiber blends and are washable. (Appendix B, p. 69)

Respondents preferred a different type of clothing for bedfast patients. For this group of people, preferences were for shift-style dresses, one-piece dress types, V-necklines, convertible collars, short sleeves, raglan or kimono sleeves, straight-hemmed sleeve finishes, A-line skirts, beltless and seamless waistlines, tie-string fasteners, center front openings from neck to hem, action pleats in bodice backs and clothing made from completely washable woven fabrics made from fiber blends. (Appendix B, p. 69)

In addition to supplying their opinions on dress features, the respondents from the nursing staff were also queried regarding other clothing properties. Only three recalled any style features of maternity wear which could be adapted for wear by the handicapped.

Most of the respondents stated that skin allergies required certain types of styles and fabrics. Sensitivity to fabric, especially wool and nylon, was reported as the most common type of allergy.

Bright, sunny colors were chosen as the most satisfactory for fabrics. According to staff members, the colors favored most by the patients were blue, pink, green, and yellow. Tiny floral prints, checks, and plain solid colors ranked high on choice of fabric design. Concerning the price of clothing items for the handicapped, most respondents preferred prices ranging from $10 to $15.

When asked if they had any further suggestions for developing, designing, or producing clothing for the physically handicapped, three respondents replied affirmatively. Fourteen of the nursing home staff respondents were agreeable to a personal interview concerning their opinions on clothing for the handicapped and aged.

Staff Interviews

Based upon their questionnaire responses, ten staff members were chosen for personal interviews. These interviews were designed to eliminate dubious responses from the questionnaires and to ascertain the reasons for certain responses made by staff members.

Several of those interviewed had indicated a preference for shift dress styles for wheelchair patients. When questioned about the comfort factor of such a style, the interviewees specified that the shift dress must be styled with an A-line skirt. This type skirt would provide enough ease for comfort when sitting down, but would not be full enough to catch in the spokes of the wheelchair. Because skirts tend to ride up when the patient is seated, the length of the skirt was an important consideration. If the patient uses a lap robe (a small blanket laid across the lap which partially covers the shins), the patient may choose any dress length she desires. However, if no

additional covering is used over the dress of the patient, the length of the dress should extend below the knee. Dresses with a waistline seam and/or belt were thought to be too confining for comfort of the wheelchair patient.

The staff members were asked why they preferred the shift style for those who used crutches. Even though the shift dress may ride up somewhat when the patients walk, the respondents thought a belted waistline would be too confining and uncomfortable. One nurse stated that if the patient walks correctly with his crutches, the wrists of the patient will bear the weight of the body. Therefore, the crutches will not touch the underarm area of the patient and will not cause a one-piece dress to ride up while the patient is walking. This would also make it unnecessary to heavily reinforce the underarm area of the garment, since it is not exposed to constant friction from the crutches. The nurse added, however, that some patients use their crutches incorrectly. In situations such as these, a two-piece dress would be more appropriate.

The princess dress for ambulatory patients was suggested by an interviewee. Besides being a comfortable and flattering style, the princess dress is capable of camouflaging minor deformities such as humpbacks and uneven shoulders.

The interviewees agreed that the most appropriate skirt style was that which adapted best to the physical limitation in question. For the wheelchair patient, an A-line skirt which is cut generously through the hips was favored. The same type of skirt, a generously-cut A-line, won the approval of the staff for use with leg braces. One of those interviewed suggested that a gathered skirt would be best for crutch

cases, provided it was not too full to tangle in the crutches. Another staff member voiced approval of the wearing of skirts as opposed to dresses. If the waist is not too confining, a skirt will be comfortable but will not ride up as one-piece dresses often do.

Because pressure tape (Velcro) is used increasingly in therapeutic equipment and for clothing the handicapped, the staff members were asked their opinions concerning Velcro. This pressure tape was being used in both nursing homes for wrist restraints and for use in taking blood pressure. The staff members were familiar with Velcro, but had not previously considered its use in clothing for patients. One nurse questioned its durability after repeated harsh treatment in the laundry. Another nurse had used Velcro in her children's clothing, and although the pressure tape was sufficiently durable, she mentioned its tendency to stick to other articles in the clothes dryer as a laundry problem. One staff member thought the pressure tape attracted lint when being laundered. Although another interviewee could visualize its advantages for clothing certain patients, she warned that those who frequently undress themselves in public might be encouraged with the easily-separated pressure tape. All of those interviewed agreed that Velcro, with some minor improvements, was a promising material for clothing for the handicapped in the future.

Two other types of dress fasteners were discussed. One nurse endorsed the use of snap fasteners on the gowns of bedfast patients, for traditional tie strings often tangle. She emphasized that the bedfast are encouraged to get out of bed and dress when possible, and snap fasteners would provide a more modest covering on these occasions. Magnetic fasteners are a relatively new innovation, but one nurse had

had some experience with their use in patients' clothing. She favored the magnetic fasteners because of their durability, and ease in closing and unfastening.

The interviewees commented on the placement of garment closures. One nurse clarified her choice of the slip-over-the-head closure for patients. She favored this type only when the garment partially zipped up the front, therefore greatly enlarging the opening. Another nurse had mistakenly chosen the front opening for bedfast patients, and actually preferred the back opening for the gowns of bedfast patients. Another staff member added that the back opening was actually more convenient when carying for the bedfast. The patient can easily be rolled over and the back opening undone, but the patient is modestly covered when lying on his back. The staff member was also in favor of back-opening closures for the wheelchair patients because they offered less exposure and no gap. Most of the staff members, however, preferred the use of a front opening for use with wheelchair patients.

Some of the staff members had not fully understood the meaning of "action features" when completing the written questionnaire. When the interviewer defined the term for them, they were unanimously in favor of the use of action pleats. The staff members could visualize the use of action features primarily for wheelchair and crutch cases. A pleat in the bodice back was favored for both types of patients, while an underarm gusset was endorsed for those who must use crutches. The staff member responsible for mending garments for the patients stated that the middle of the back bodices and the garment underarms were the areas which most frequently required mending.

Many of the staff members stated a preference for garments of woven fabrics rather than garments of knit fabrics. They defined "woven fabrics" as those which were wrinkle-resistant and/or treated with a permanent-press finish. The advantages of "wovens" were their ability to be laundered frequently, easy-care features, neat appearance, and physical comfort. Even though knit fabrics are currently popular for general public use, the staff members were dubious of their role in clothing for the handicapped. The harsh treatment of the laundry would damage the knits, and the laundry personnel could not afford to give knit garments special attention. Because the cost of knits is generally higher than for woven fabrics, the staff indicated the patients would be unable to afford a wardrobe of knit garments. The interviewees were not satisfied with the performance of knit garments on the patients, for the fabric tended to pull, snag, and stretch out of shape. The staff did indicate a preference for doubleknit fabrics rather than crocheted or sweater knits.

Non-woven fabrics are used somewhat in the nursing homes, mainly for underpads on incontinent patients. The staff shunned the idea of non-wovens for garments because of their rigidity, stiffness, unnatural feel, odd odor, and their plain and uninteresting appearance.

The question of allergies to fabrics was discussed, primarily because many of the staff had previously mentioned the sensitivity of the patients to nylon fabric. (It is generally believed that synthetic fibers are incapable of causing allergies.) All of those interviewed mentioned the patients' sensitivity to nylon, but some mentioned it may be the dye, tight-woven fabric, or the unabsorbent characteristic of nylon which actually caused the irritation. Garments which were in

close contact with the skin, such as lingerie and gowns, were often sources of skin irritation. Wool and flannel were also mentioned frequently as causes of allergies. One staff member stated that the skin of the elderly is very fragile and can tear easily. She therefore recommended the use of soft cotton for these patients.

One respondent was asked why she preferred sleeveless styles for the women patients. Even though sleeveless dresses are not preferred by elderly women, the staff member stated that sleeveless dresses would be more comfortable, provide more ease in movement, and decrease difficulty in dressing and undressing the patient.

Although the majority preferred sleeved styles for the bedfast, one interviewee preferred sleeveless gowns for the bedfast. Increased comfort and ease in movement were reasons for preferring the sleeveless styles. She thought adequate warmth could be provided by the blankets covering the patient.

Another staff member offered a suggestion for finishing long sleeves worn by wheelchair patients. If the edge of the long sleeve were elasticized, this would prevent the sleeve from becoming tangled in the wheel spokes.

In general, the interviewees stated there were few complaints by the patients about their clothing. The patients did not complain because they felt nothing could be done to improve their clothing. The lack of complaints indicated the acceptance of an unpleasant situation more than satisfaction with their clothing. Many patients wore dusters or hospital gowns most of the time. The hospital gowns could be purchased at local stores and were available in several colors, had set-in sleeves, and were often decorated. Many patients became

attached to one or two garments and refused to wear any others. Because of this, they avoided wearing new dresses or experimenting with new styles. Therefore, the staff members felt most patients would not accept pantsuits for general use.

Patient Interviews

In order to detect and correct any erroneous assumptions of the staff members, the actual patients in the two nursing homes were interviewed. Registered nurses suggested certain women who were capable of answering questions about their clothing preferences. From these names, ten patients were selected for the personal interviews.

The ages of the ten women ranged from 66 to 85 years, with an average age of 76. The amount of physical disability also varied, ranging from those who were ambulatory to completely bedfast patients. An identification profile of each patient interviewed appears in Table I of Appendix C, p. 75.

Each of the ten patients was approached individually and asked to answer questions concerning her clothing preferences. To clarify the meaning of certain style terms, the interviewer used pictures to illustrate the style features in question. The patient was encouraged to choose style features which would be comfortable and becoming to her, not necessarily the style features she thought most attractive.

The patients were asked identical questions, and the individual responses to each inquiry are listed in Table II, Appendix D, p. 77.

After examining the raw data from the patient interviews, it became evident that no one style of dress would be appealing to all persons having a certain type of physical limitation. Individual

tastes in clothing vary, and the patients interviewed for this study were no exception.

As a group, the ten patients did significantly prefer certain style features over others. Those styles favored were princess dresses, one-piece dresses, jewel necklines, Peter Pan collars, three-quarter sleeve lengths, raglan sleeves, straight sleeves, A-line skirts, beltless waistlines, zipper fasteners, front openings from neck to hem, action pleats in center of back bodice, woven fabrics, fabrics of fiber blends, and solid colors, especially red. (Table III, Appendix E, p. 81)

Patients were also asked to list style features they disliked. One ambulatory patient mentioned back zipper openings, while the bed-fast patient disliked back closures, high necklines, and long sleeves. Those confined to wheelchairs stated their dislike for dresses which did not have pockets or which fit tightly, especially across the back.

Several of the patients described and/or displayed their favorite dress, all of which had some comfort features incorporated into them. These descriptions appear in Table I, Appendix C, p. 75.

Pantsuits, which have recently gained fashion popularity and acceptance, were not accepted by the majority of patients. Having grown up during times when "women did not wear pants," many of the patients could not adapt to the new style.

Dress length, another controversial fashion issue, was the topic of the final question. However, eight of the ten women stated that they preferred "below-the-knee" styles. (Table III, Appendix E, p. 81)

CHAPTER V

DISCUSSION OF FINDINGS

Previous research indicated a definite need for additional investigation of clothing for the physically handicapped. However, the response shown by staff members interviewed for this study was even greater than anticipated. Because of their daily contact with the clothing problems of patients, the nursing home personnel were extremely aware of the difficulty in dressing the handicapped. Their interest in the study, cooperation in completing questionnaires, and volunteering for interviews was very encouraging. The attitude and enthusiasm of the staff members eliminated any doubt of the need for special clothing for the handicapped.

Based on the cumulative responses of patients and nursing home personnel, the following style features were preferred over others within their respective categories (Table IV, Appendix F, p. 83): shift dress styles, one-piece dress types, jewel necklines, convertible collars, above-elbow sleeves, raglan sleeves, straight hemmed sleeve finishes, A-line skirts, no-waist dresses, zipper fasteners, center-front closures extending from neck to hem, action pleats in back bodice, fabrics made of fiber blends, knit fabrics, floral fabric designs, and pink or red fabric colors.

Although the number of patients interviewed was small, certain trends could be detected from their responses. In some cases,

individual tastes in clothing styles were evident, but the types of handicapped patients did agree with others in their categories concerning certain style features. Both of the ambulatory patients favored jewel necklines, Peter Pan collars, three-quarter-length sleeves, raglan sleeves, A-line skirts, the color red, and fabric blends. Wheelchair patients indicated preferences for princess dress styles, one-piece dress types, jewel necklines, Peter Pan collars, three-quarter-length sleeves, raglan sleeves, straight-hemmed sleeves, A-line skirts, the color lavender, no waist-seam dresses, zipper fasteners, front closures, fabric blends, and below-knee lengths. The responses of these patient categories are listed in Table III, Appendix E, p. 81. Because of the limited number of bedfast and leg brace patients interviewed, the responses have not been discussed, but are listed in Table III, Appendix E, p. 81.

It had been expected that each type of physical handicap (wheelchair, ambulatory, etc.) would require a markedly different set of preferred style features. However, this was not the case. In most instances, staff members and patients preferred one style feature for all types of handicaps over the other style features within a category. This finding indicated that dress designs could possibly satisfy many (if not all) types of physical handicaps.

There are some handicaps which require one or two certain style features for comfort and mobility. If those basic needs are satisfied, however, there are endless possibilities for design variation. For example, a person may require a shift dress style with an A-line skirt for comfort. Her wardrobe may be composed of A-line shifts, but each has style, fabric, and color variations which make it different from

the others.

Because a basic dress design is capable of satisfying many types of physical handicaps, many possibilities theoretically exist for the manufacture of special clothing for the handicapped. The individual patient presents a problem to the manufacturer, however. The figures of elderly women are hard to fit and cover a vast range of measurements and sizes. Physically handicapped figures also provide additional problems to the mass producer of clothing. Besides fit, the personal preferences and tastes of the patients are an obstacle to the manufacturer. In a mass market situation, a manufacturer can offer a wide selection of colors, styles, and fabrics. Although there is a sizeable demand for special clothing for the handicapped, the demand is not large enough to warrant manufacture on a mass scale. The only possible alternative for the manufacturer would be to offer styles which could be worn by non-handicapped, as well as handicapped, persons.

The most productive effort might be directed to the commercial pattern companies. It would necessitate the addition of several basic patterns which could be offered in various size ranges. Patterns could be altered to accommodate the particular handicap, and aesthetic features could be chosen to suit the personal tastes of the wearer.

The comparison of staff responses and patient responses (Table IV, Appendix F) concerning preferred style features illustrates general agreement in most categories. Differences in group opinions are concentrated mainly in aesthetic features such as fabric color and design. The answers of one group cannot be considered more reliable than those of the other group. The staff members responded to the situation as a whole, while the patient responses were on an individual basis.

Therefore, personal preferences were voiced in the patient responses. The staff members had experienced the problem in many different forms, and also had a greater amount of time to contemplate on their responses. In most categories, the staff members and patients were in agreement.

The results of the study compare favorably with previous research in the area of clothing for the handicapped. The style features preferred for the cerebral palsied, arthritics, and those in other handicapped studies were also preferred for the elderly, handicapped women. This study, however, was more specific and extensive in the number of style features considered. Because this is the first comprehensive study of clothing for the physically handicapped and elderly woman, no previous work exists with which to compare it.

Literature on the psychology of clothing has indicated a direct relationship between clothing values and the emotional well-being of a person. During the patient interviews, this fact was evident. Those who were busy, aware, and engaged in various activities also showed a marked interest in clothing. One factor seemed to complement the other.

The two central ideas derived from this study were, 1) there is a great need for additional research in special clothing for the elderly, handicapped woman; and, 2) certain style features can be combined to produce dresses which are appropriate for many types of physical handicaps.

CHAPTER VI

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of the study was to identify the specific functional and aesthetic outerwear clothing needs of physically handicapped females, aged 65 years or older. Professional staff members contacted in local nursing homes offered opinions and stated facts concerning clothing for elderly and physically handicapped women. These data were obtained through written questionnaires and personal interviews. Additional information was provided by patients within the nursing homes during personal interviews.

Findings from this investigation indicated a definite need for specially-designed clothing for the elderly and physically handicapped. Staff members showed little awareness of existing suppliers of clothing for the handicapped and of fashion therapy treatments. In general, previous research conducted in clothing for the physically handicapped is in agreement with the findings of this study. The preferred style features of staff members and patients are as follows: shift dresses, one-piece dresses, jewel necklines, convertible collars, above-elbow sleeves, raglan sleeves, straight-hem sleeve finishes, A-line skirts, beltless dresses, zipper fasteners, center-front closures from neck to hem, action pleats in back bodice, fabrics made of fiber blends, knit fabrics, floral fabric designs, and pink or red fabric colors.

Although there were slight differences between staff and patient responses, or between different types of handicapped patients, most respondents preferred the same style features.

Conclusions

1. There is a definite need for specially designed clothing for physically handicapped, elderly women.
2. Only a small percentage of the nursing home staff members were aware of fashion therapy programs, clothing departments in institutions, or existing suppliers of clothing for the physically handicapped.
3. In general, previous research regarding clothing for the physically handicapped can be applied to those who are 65 years of age or older.
4. Certain style features can be combined to produce dresses which are appropriate for many types of physical handicaps.
5. There is a great need for additional research in special clothing for the elderly, handicapped woman.

Recommendations

1. Design garments which have the preferred style features identified in this study.
2. Construct and test these garments for comfort, function, and attractiveness with selected, handicapped, elderly women.
3. Investigate the possibility of ready-to-wear for both the handicapped and non-handicapped.

4. Research other groups of physically handicapped, such as adult men, to ascertain their needs for special clothing.
5. Replicate this study with a larger sample of physically handicapped, elderly women.

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APPENDIX A

STAFF QUESTIONNAIRE FORM

S T A F F Q U E S T I O N N A I R E F O R M

Name _____ (Personal information will be kept confidential)

Professional Position _____

A. General Information

1. Do you feel there is a need for functional and attractive clothing for the physically handicapped woman who is 65 years of age and over?
   _____Yes
   _____No

2. Are you aware of the existing companies offering special clothing for the handicapped? (i.e., FashionAble, Vocational Guidance and Rehabilitation Services Catalog) _____Yes _____No
   If yes, to what extent?
   _____Heard of them.
   _____Seen their catalogs.
   _____Ordered their merchandise.
   _____Used their clothing with patients.

3. Are you familiar with the term "fashion therapy"?
   _____Yes
   _____No

B. Information Regarding Rest Home Where You Are Employed

1. Does your staff have any type of program which concerns clothing for your patients?
   _____Yes
   _____No

   If yes, please describe (i.e., clothing department, method of obtaining clothing, handling of patient's personal clothing when admitted, and fitting, altering, identification, and laundering of clothing).

2. "Fashion Therapy" strives to aid the patient toward rehabilitation through improvement of personal appearance. If your institution does not have such a program, would you be interested in participating in this type of rehabilitative activity?
   _____Yes
   _____No

3. How do the patients obtain their clothing?
   _____Donations
   _____Personal selection & expense
   _____Provided by the nursing home
   _____Other (specify)?

4. In general, how much clothing interest is shown by your patients?
   _____Indifferent to clothes
   _____Enjoy selecting and wearing clothes
   _____Dislike clothes and the effort of dressing
   _____Form attachments to favorite articles of clothing
   _____Other (specify)?

5. What clothing problem(s) do your patients encounter most frequently?
   _____Suitable clothes not readily available
   _____Prices too high
   _____Improper fit
   _____Design not adaptable to handicap
   _____Durability and wearing quality poor
   _____Lack of fashionable styles in clothes suitable for the handicap
   _____Clothing difficult to put on and remove
   _____Other (specify)?

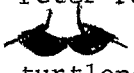
6. Do you feel your patients would benefit from having clothing designed with their handicaps in mind?
   _____Yes
   _____No

7. Are the majority of your patients able to dress themselves?
   _____Yes
   _____No

8. Have your patients expressed any particular complaints about their clothing?
   _____Yes (specify)
   _____No

C. Clothing Styles for the Handicapped

Directions: In the following section, you are asked your opinions regarding clothing for the physically handicapped woman, 65 years of age and over. The women have been divided into five categories: 1) wheelchair; 2) ambulatory and chronically ill; 3) crutches; 4) leg braces or casts; and 5) bedfast patients. In the chart on the next page, certain dress styles are listed in the left-hand column. The types of physical handicaps are listed across the top of the chart. Please select the style feature which would be most appropriate for each type of handicap and place an "x" in the space provided. You are encouraged to consult the patients on these questions. Feel free to add any comments.

STYLE FEATURES	HANDICAPS				
	WHEELCHAIR PATIENTS	CHRONICALLY ILL AND AMBULATORY	CRUTCHES	LEG BRACES OR CASTS	BEDFAST
1. Dress Styles					
a. Empire 					
b. Shirtwaist 					
c. Shift 					
d. Princess 					
2. Dress Types					
a. one-piece					
b. two-piece					
c. jumper					
3. Necklines					
a. jewel 					
b. square 					
c. boat 					
d. V-neck 					
4. Collars					
a. convertible 					
b. Peter Pan 					
c. turtleneck 					
d. shirt collar 					
5. Sleeve Length					
a. full-length					
b. 3/4 length					
c. above elbow					
d. sleeveless					

(continued)

STYLE FEATURES	HANDICAPS				
	WHEELCHAIR PATIENTS	CHRONICALLY ILL AND AMBULATORY	CRUTCHES	LEG BRACES OR CASTS	BEDFAST
6. Sleeve Type					
a. set-in 					
b. raglan 					
c. kimono 					
7. Sleeve Finishes					
a. hemmed; straight					
b. cuffed					
c. gathered elastic					
d. buttoned cuff					
8. Skirts					
a. straight					
b. gathered					
c. pleated					
d. A-line					
9. Waistlines					
a. separate belts					
b. set-in belts					
c. cording					
d. no waist-seam					
e. sash					
f. elastic					
10. Fasteners					
a. buttons					
b. zippers					
c. Velcro					
d. gripper snaps					
e. hooks & eyes					
f. tie strings					
g. magnetic					

(continued)

STYLE FEATURES	HANDICAPS				
	WHEELCHAIR PATIENTS	CHRONICALLY ILL AND AMBULATORY	CRUTCHES	LEG BRACES OR CASTS	BEDFAST
11. Closures					
a. open in center front from neck to hem					
b. open in center front to 6" below waist					
c. open in center front to waist (side placket)					
d. open in center back to 6" below waist					
e. slip-over-the-head with a side placket					
f. wrap-around style					
g. slip-over-the-head					
12. Action Features					
a. action pleat in bodice back					
b. action pleat hidden in waist seam					
c. action pleat in under-arm seam					
d. gussets in sleeves					
13. Fabric Care					
a. washable					
b. non-washable					
14. Fabrics Made From					
a. natural fibers (cotton, wool)					
b. man-made fibers					
c. fiber blends					

(continued)

STYLE FEATURES	HANDICAPS				
	WHEELCHAIR PATIENTS	CHRONICALLY ILL AND AMBULATORY	CRUTCHES	LEG BRACES OR CASTS	BEDFAST
15. Fabric Construction					
a. knits					
b. wovens					
c. non-wovens (paper, disposables)					

16. Additional Comments?

17. Do you know of any style features now used in maternity wear which could be adapted to clothing for the physically handicapped? Please specify.

18. Do you feel skin allergies require certain types of styles and fabrics?
_____Yes (please specify)
_____No

19. Opinions differ concerning the color of clothing preferred by the elderly. Which of the following do you feel would be most satisfactory for them?
_____Dull, dark colors
_____Bright, sunny colors
_____Medium hues
_____Others (specify)?

20. Which color(s) seem to be favored by your patients?

____black	____orange	____blue
____white	____red	____green
____navy	____pink	____gold
____brown	____yellow	

21. Which of the following fabric designs are favored by this group of women?

____plaids
____tiny florals
____splashy florals
____checks
____plain solids
____abstract prints
____stripes

22. What price range would be most reasonable for outerwear clothing?

23. Do you have any further suggestions for developing, designing, or producing clothing for these women?

24. Would you be agreeable to a personal interview concerning clothing for the handicapped? If so, please indicate days and times during the week when you are most available.

THANK YOU VERY MUCH FOR YOUR TIME AND ASSISTANCE. PLEASE DEPOSIT YOUR COMPLETED QUESTIONNAIRE IN THE BOX AT THE CENTRAL DESK. THEY WILL BE COLLECTED ON APRIL 18, 1972.

APPENDIX B

SUMMARY OF STAFF QUESTIONNAIRE FINDINGS

SUMMARY OF STAFF QUESTIONNAIRE FINDINGS

A. General Information

1. Do you feel there is a need for functional and attractive clothing for the physically handicapped woman who is 65 years of age and over?
   20 Yes
   0 No

2. Are you aware of the existing companies offering special clothing for the handicapped?
   6 Yes
   14 No

   If yes, to what extent?

   3 Heard of them
   3 Seem their catalogs
   0 Ordered their merchandise
   0 Used their clothing with patients

3. Are you familiar with the term "fashion therapy?"
   6 Yes
   13 No

B. Information Regarding Nursing Home Where You Are Employed

1. Does your staff have any type of program which concerns clothing for your patients?
   10 Yes
   8 No

2. "Fashion Therapy" strives to aid the patient toward rehabilitation through improvement of personal appearance. If your institution does not have such a program, would you be interested in participating in this type of rehabilitative activity?
   10 Yes
   0 No
   3 Maybe

3. How do the patients obtain their clothing?
   8 Donations
   15 Personal selection and expense
   2 Provided by the nursing home
   2 Other

4. In general, how much clothing interest is shown by your patients?
   5 Indifferent to clothes
   11 Enjoy selecting and wearing clothes
   0 Dislike clothes and the effort of dressing
   5 Form attachments to favorite articles of clothing
   3 Other

5. What clothing problem(s) do your patients encounter most frequently?
   2 Suitable clothes not readily available
   3 Prices too high
   6 Improper fit
   10 Design not adaptable to handicap
   6 Durability and wearing quality poor
   5 Lack of fashionable styles in clothes suitable for the handicap
   15 Clothing difficult to put on and remove
   1 Other

6. Do you feel your patients would benefit from having clothing designed with their handicaps in mind?
   17 Yes
   0 No

7. Are the majority of your patients able to dress themselves?
   11 Yes
   6 No

8. Have your patients expressed any particular complaints about their clothing?
   3 Yes
   13 No

C. CLOTHING STYLES FOR THE HANDICAPPED
(Responses of Twenty Staff Members)

STYLE FEATURES	HANDICAPS: WHEEL-CHAIR	AMBULA-TORY	CRUTCHES	BRACES/CASTS	BEDFAST	TOTALS
Dress Styles						
Empire	1	3	3	3	0	10
Shirtwaist	3	5	2	1	1	12
Shift	14	10	11	11	11	57
Princess	6	7	5	5	1	24
Dress Types						
One-piece	15	15	15	12	12	69
Two-piece	1	4	2	1	1	9
Jumper	2	2	4	3	1	12
Necklines						
Jewel	7	7	5	8	5	32
Square	4	4	6	5	5	24
Boat	4	3	4	5	4	20
V-neck	7	1	7	8	6	29
Collars						
Convertible	8	8	9	7	8	40
Peter Pan	6	8	6	5	5	30
Turtleneck	1	4	2	2	0	9
Shirt Collar	5	6	5	7	2	25
Sleeve Length						
Full-length	1	4	0	2	1	8
3/4 length	6	8	5	9	7	35
Above elbow	13	10	11	10	10	54
Sleeveless	3	5	3	4	6	21
Sleeve Type						
Set-in	5	10	8	8	2	33
Raglan	12	12	9	10	8	51
Kimono	6	5	4	6	8	29
Sleeve Finishes						
Straight hem	12	13	12	12	14	63
Cuffed	4	5	4	4	0	17
Elasticized	3	3	3	3	1	13
Buttoned cuff	1	2	2	2	0	7
Skirts						
Straight	2	5	2	1	1	11
Gathered	6	4	6	7	2	25
Pleated	3	7	6	8	3	27
A-line	10	12	11	10	9	52

STYLE FEATURES	HANDICAPS: WHEEL-CHAIR	AMBULA-TORY	CRUTCHES	BRACES/CASTS	BEDFAST	TOTALS
Waistlines						
Separate belts	1	5	3	2	1	12
Set-in belts	0	3	2	2	0	7
Cording	1	3	2	1	0	7
No waist-seam	17	16	15	15	13	76
Sash	1	3	3	2	0	9
Elastic	3	3	2	2	2	12
Fasteners						
Buttons	3	6	4	4	2	19
Zippers	13	12	11	11	0	47
Velcro	1	1	2	1	1	6
Gripper snaps	7	5	8	7	4	31
Hooks & eyes	1	2	2	2	1	8
Tie strings	3	3	2	2	11	21
Magnetic	4	3	3	3	2	15
Closures						
Front (to hem)	11	9	8	9	5	42
Front (to hips)	2	7	6	5	1	21
Front (side placket)	0	2	2	0	0	4
Back (to hips)	3	8	4	3	4	22
Side placket only	1	1	1	1	0	4
Wrap-around	5	5	4	3	2	19
Slip-over-head	2	3	4	2	3	14
Action Features						
Pleat in back	9	10	8	6	6	39
Pleat in waist	0	1	3	2	1	7
Pleat (underarm)	6	5	8	5	2	26
Sleeve gussets	3	2	2	2	2	11
Fabric Care						
Washable	18	17	14	14	16	79
Non-washable	0	0	0	0	0	0
Fabrics Made From						
Natural fibers	4	3	3	3	3	16
Man-made fibers	7	6	6	6	6	31
Fiber blends	11	11	10	11	8	51
Fabric Construction						
Knits	9	9	7	7	5	37
Wovens	6	6	6	6	6	30
Non-wovens	0	0	0	0	0	0

C. Clothing Styles (cont'd)

17. Do you know of any style features now used in maternity wear which could be adapted to clothing for the physically handicapped?
3 Yes
15 No

18. Do you feel skin allergies require certain types of styles and fabrics?
14 Yes
2 No

19. Opinions differ concerning the color of clothing preferred by the elderly. Which of the following do you feel would be most satisfactory for them?
2 Dull, dark colors
12 Bright, sunny colors
11 Medium hues
1 Others

20. Which color(s) seem to be favored by your patients?

1 Black	2 Orange	18 Blue
1 White	9 Red	10 Green
7 Navy	13 Pink	3 Gold
2 Brown	10 Yellow	

21. Which of the following fabric designs are favored by this group of women?

5 Plaids	10 Plain solids
13 Tiny florals	0 Abstract prints
2 Splashy florals	7 Stripes
10 Checks	

22. What price range would be most reasonable for outerwear clothing?
4 $5-$10
9 $10-$15
1 $15-$20

23. Do you have any further suggestions for developing, designing, or producing clothing for these women?
3 Yes
7 No

24. Would you be agreeable to a personal interview concerning clothing for the handicapped? If so, please indicate days and times during the week when you are most available.
14 Yes
2 No

APPENDIX C

IDENTIFICATION PROFILE AND DRESS PREFERENCE OF RESPONDENTS

TABLE I

IDENTIFICATION PROFILE AND DRESS PREFERENCES OF TEN RESPONDENTS

IDENTIFICATION PROFILE			DRESS PREFERENCE DESCRIPTION *
PATIENT	AGE	CLASSIFICATION	
A	71	Ambulatory; must use walker.	
B	83	Ambulatory	Shift style with seam detail; red polyester knit; two front pleats; jewel neckline; above-elbow sleeves.
C	66	Bedfast; has cerebral hardening of the arteries.	
D	85	Leg brace; paralysis of one side due to a stroke.	Shirtwaist style; black and white cotton print; woven permanent-press fabric.
E	67	Wheelchair; partial paralysis due to a stroke.	Jumper and blouse; gold jumper with gold/black-striped blouse; A-line style jumper; patch pockets; polyester knit.
F	74	Wheelchair; partial paralysis due to a stroke.	
G	85	Wheelchair; has hardening of the arteries.	Shift style; convertible collar; three-quarter-length sleeves with straight hems; patch pockets; navy/white striped fabric; woven, permanent-press fabric blend.
H	76	Wheelchair.	Blue/white flowered dress; woven, permanent-press fabric blend.
I	79	Wheelchair; has arthritis.	Princess style; zip-up front; set-in sleeves, elbow length, straight hem; blue/lavender paisley print; cotton-polyester blend fabric; woven, permanent-press.
J	70	Wheelchair.	Shift style; zip-up front; front opening from neck to hem; raglan sleeves.

* not all patients responded

APPENDIX D

INDIVIDUAL PATIENT RESPONSES TO INTERVIEWS

TABLE II

SUMMARY OF TEN INDIVIDUAL PATIENT RESPONSES
CONCERNING PREFERRED STYLE FEATURES
IN DRESSES

STYLE FEATURES	PATIENT IDENTIFICATION AND CLASSIFICATION										TOTALS
	AMBULATORY		BED-FAST	BRACE	WHEELCHAIR PATIENTS						
	A	B	C	D	E	F	G	H	I	J	
Dress Styles											
Empire											0
Shirtwaist	x				x						2
Shift		x	x							x	3
Princess	x			x	x	x	x	x	x		7
Dress Types											
One-piece		x	x	x		x	x		x	x	7
Two-piece								x			1
Jumper	x				x						2
Necklines											
Jewel	x	x			x	x	x	x			6
Square				x							1
Boat											0
V-neck			x						x		2
Collars											
Convertible				x					x		2
Peter Pan	x	x			x		x	x		x	6
Turtleneck					x						1
Shirt Collar						x					1
Mandarin								x			1
No collar			x								1
Sleeve Length											
Full-length										x	1
3/4 length	x	x		x	x		x	x	x		7
Above elbow			x			x				x	3
Sleeveless											0
Sleeve Type											
Set-in			x	x				x	x		4
Raglan	x	x			x	x	x			x	6
Kimono											0
Sleeve Finishes											
Straight hem	x		x		x	x	x	x	x	x	8
Cuffed											0
Elasticized											0
Buttoned cuff		x		x				x			3

TABLE II (Continued)

STYLE FEATURES	PATIENT IDENTIFICATION AND CLASSIFICATION										TOTALS
	AMBULATORY		BED-FAST	BRACE	WHEELCHAIR PATIENTS						
	A	B	C	D	E	F	G	H	I	J	
Skirts											
Straight							x				1
Gathered				x							1
Pleated								x	x		2
A-line	x	x	x		x	x				x	6
Waistlines											
Separate belts	x				x						2
Set-in belts											0
Cording											0
No waist-seam		x	x	x		x	x	x	x	x	8
Sash											0
Elastic											0
Fasteners											
Buttons				x						x	2
Zippers		x				x	x	x	x		5
Velcro											0
Gripper snaps	x				x		x				3
Hooks & eyes											0
Tie strings			x								1
Magnetic											0
Closures											
Front (to hem)	x			x	x		x	x		x	6
Front (to hips)		x				x		x	x		4
Front (side placket)											0
Back (to hips)			x								1
Side placket only											0
Wrap-around											0
Slip-over-head											0
Action Features											
Pleat in back	x				x			x			3
Pleat in waist											0
Pleat (underarm)											0
Sleeve gussets				x							1
Fabrics											
Natural fibers				x							1
Synthetics					x			x	x		3
Blends	x	x	x		x	x	x	x	x	x	9

TABLE II (Continued)

STYLE FEATURES	PATIENT IDENTIFICATION AND CLASSIFICATION										TOTALS
	AMBULATORY		BED-FAST	BRACE	WHEELCHAIR PATIENTS						
	A	B	C	D	E	F	G	H	I	J	
Fabric Construction											
Knits	x			x	x	x		x			5
Wovens		x	x	x			x		x	x	6
Non-wovens											0
Favorite Colors											
Royal Blue	x				x					x	3
Yellow	x		x		x						3
Pink	x				x						2
Red	x	x	x	x	x			x			6
Lavender					x				x	x	3
Rose						x					1
Gray							x				1
Favorite Design											
Checks	x				x						2
Plaids	x				x						2
Solids		x			x		x	x		x	5
Stripes								x			1
Floral						x			x		2
Pantsuits											
Do wear them					x						1
Don't wear them		x					x		x	x	4
Might wear them	x							x			2
Dress Length											
Above knee					x						1
Below knee		x	x	x		x	x	x	x	x	8
At the knee	x										1

APPENDIX E

PREFERRED STYLE FEATURES IN DRESSES REPORTED BY PATIENTS INTERVIEWED AND CLASSIFIED BY HANDICAP CATEGORY

TABLE III

PREFERRED STYLE FEATURES IN DRESSES REPORTED BY TEN PATIENTS INTERVIEWED AND CLASSIFIED BY HANDICAP CATEGORY

STYLE FEATURES	HANDICAP: AMBULATORY	BEDFAST	LEG BRACE	WHEELCHAIR	TOTALS
Dress Styles					
Empire	0	0	0	0	0
Shirtwaist	1	0	0	1	2
Shift	1	1	0	1	3
Princess	1	0	1	5	7
Dress Types					
One-piece	1	1	1	4	7
Two-piece	0	0	0	1	1
Jumper	1	0	0	1	2
Necklines					
Jewel	2	0	0	4	6
Square	0	0	1	0	1
Boat	0	0	0	0	0
V-neck	0	1	0	1	2
Collars					
Convertible	0	0	1	1	2
Peter Pan	2	0	0	4	6
Turtleneck	0	0	0	1	1
Shirt collar	0	0	0	1	1
Mandarin	0	0	0	1	1
No collar	0	1	0	0	1
Sleeve Length					
Full-length	0	0	0	1	1
3/4 length	2	0	1	4	7
Above elbow	0	1	0	2	3
Sleeveless	0	0	0	0	0
Sleeve Type					
Set-in	0	1	1	2	4
Raglan	2	0	0	4	6
Kimono	0	0	0	0	0
Sleeve Finishes					
Straight hem	1	1	0	6	8
Cuffed	0	0	0	0	0
Elasticized	0	0	0	0	0
Buttoned cuff	1	0	1	1	3
Skirts					
Straight	0	0	0	1	1
Gathered	0	0	1	0	1
Pleated	0	0	0	2	2
A-line	2	1	0	3	6
Favorite Colors					
Royal blue	1	0	0	2	3
Yellow	1	1	0	1	3
Pink	1	0	0	1	2
Red	2	1	1	2	6
Lavender	0	0	0	3	3
Rose	0	0	0	1	1
Gray	0	0	0	1	1

STYLE FEATURES	HANDICAP: AMBULATORY	BEDFAST	LEG BRACE	WHEELCHAIR	TOTALS
Waistlines					
Separate belts	1	0	0	1	2
Set-in belts	0	0	0	0	0
Cording	0	0	0	0	0
No waist-seam	1	1	1	5	8
Sash	0	0	0	0	0
Elastic	0	0	0	0	0
Fasteners					
Buttons	0	0	1	1	2
Zippers	1	0	0	4	5
Velcro	0	0	0	0	0
Gripper snaps	1	0	0	2	3
Hook & eyes	0	0	0	0	0
Tie strings	0	1	0	0	1
Magnetic	0	0	0	0	0
Closures					
Front (to hem)	1	0	1	4	6
Front (to hips)	1	0	0	3	4
Front (side placket)	0	0	0	0	0
Back (to hips)	0	1	0	0	1
Wrap-around	0	0	0	0	0
Slip-over-head	0	0	0	0	0
Action Features					
Pleat in back	1	0	0	2	3
Pleat in waist	0	0	0	0	0
Pleat (underarm)	0	0	0	0	0
Sleeve gussets	0	0	1	0	1
Fabrics					
Natural fibers	0	0	1	0	1
Synthetics	0	0	0	3	3
Blends	2	1	0	6	9
Fabric Construction					
Knits	1	0	1	3	5
Wovens	1	1	1	3	6
Non-wovens	0	0	0	0	0
Favorite Design					
Checks	1	0	1	0	2
Plaids	1	0	1	0	2
Solids	1	0	4	0	5
Stripes	0	0	1	0	1
Floral	0	0	2	0	2
Pantsuits					
Do wear them	0	0	0	1	1
Don't wear them	1	0	0	3	4
Might wear them	1	0	0	1	2
Dress Length					
Above knee	0	0	0	1	1
Below knee	1	1	1	5	8
At the knee	1	0	0	0	1

APPENDIX F

SUMMARY OF PREFERRED STYLE FEATURES IN DRESSES AS REPORTED BY PATIENTS AND STAFF

TABLE IV

SUMMARY OF PREFERRED STYLE FEATURES IN DRESSES AS REPORTED BY TEN PATIENTS AND TWENTY STAFF

STYLE FEATURES	PATIENT RESPONSES n=10	STAFF RESPONSES n=20	CUMULATIVE TOTALS
Dress Styles			
Empire	0	10	10
Shirtwaist	2	12	14
Shift	3	57	60
Princess	7	24	31
Dress Types			
One-piece	7	69	76
Two-piece	1	9	10
Jumper	2	12	14
Necklines			
Jewel	6	32	38
Square	1	24	25
Boat	0	20	20
V-neck	2	29	31
Collars			
Convertible	2	40	42
Peter Pan	6	30	36
Turtleneck	1	9	10
Shirt collar	1	25	26
Mandarin	1	0	1
No collar	1	0	1
Sleeve Length			
Full-length	1	8	9
3/4 length	7	35	42
Above elbow	3	54	57
Sleeveless	0	21	21
Sleeve Type			
Set-in	4	33	37
Raglan	6	51	57
Kimono	0	29	29
Sleeve Finishes			
Straight hem	8	63	71
Cuffed	0	17	17
Elasticized	0	13	13
Buttoned cuff	3	7	10
Skirts			
Straight	1	11	12
Gathered	1	25	26
Pleated	2	27	29
A-line	6	52	58
Favorite Design			
Checks	2	10	12
Plaids	2	5	7
Solids	5	10	15
Stripes	1	7	8
Florals	2	15	17
Abstract prints	0	0	0

STYLE FEATURES	PATIENT RESPONSES n=10	STAFF RESPONSES n=20	CUMULATIVE TOTALS
Waistlines			
Separate belts	2	12	14
Set-in belts	0	7	7
Cording	0	7	7
No waist-seam	8	76	84
Sash	0	9	9
Elastic	0	12	12
Fasteners			
Buttons	2	19	21
Zippers	5	47	52
Velcro	0	6	6
Gripper snaps	3	31	34
Hooks & eyes	0	8	8
Tie strings	1	21	22
Magnetic	0	15	15
Closures			
Front (to hem)	6	42	48
Front (to hips)	4	21	25
Front (side placket)	0	4	4
Back (to hips)	1	22	23
Side placket only	0	4	4
Wrap-around	0	19	19
Slip-over-the-head	0	14	14
Action Features			
Pleat in back bodice	3	39	42
Pleat in waist seam	0	7	7
Pleat (underarm seam)	0	26	26
Sleeve gussets	1	11	12
Fabrics			
Natural fibers	1	16	17
Synthetics	3	31	34
Blends	9	51	60
Fabric Construction			
Knits	5	37	42
Wovens	6	30	36
Non-wovens	0	0	0
Favorite Colors			
Royal blue	3	18	21
Yellow	3	10	13
Pink	2	13	15
Red	6	9	15
Lavender	3	0	3
Rose	1	0	1
Gray	1	0	1
Black	0	1	1
White	0	1	1
Navy	0	7	7
Brown	0	2	2
Orange	0	2	2
Green	0	10	10
Gold	0	3	3

VITA

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